



Model 33KBX35

Multiple Tube Well Type Manometer

Model 33KBX35, Meriam multiple tube well type manometer, is a versatile instrument used in production testing, process measurement, and for laboratory data analysis. Up to six individual direct reading manometer systems are enclosed in individual compact cases. Each tube (system) can be used to measure pressure, vacuum, differential pressure, flow or liquid level. Complex pressure distributions or multiple pressure relationships are easily observed and readily compared.

Different manometer fluids of various densities can be used in each tube. The scales can be graduated as required. Flexibility for various application requirements is possible by design modifications. For example, raised wells can be furnished so positive and negative pressures can be indicated without changing the pressure connections.

The multiple tube type manometer is widely used for tank liquid level measurement. Many tanks located remotely on a tank farm are connected to the level gauges in the central control instrument panel. Special scales can be graduated duplex to indicate tank liquid depth in feet and inches, as well as tank capacity in gallons or pounds.

Model 33KBX35 Construction

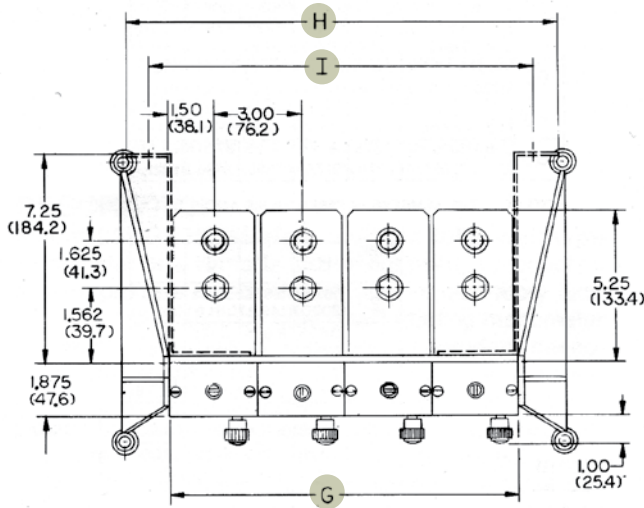
The indicating tubes are ruggedly housed in individual aluminum channels which are securely connected together. The end blocks are constructed of stainless steel. Each manometer has a large bore glass indicating tube (securely packed with leakproof seals) to give a bold, easy-to-read indicating column with any manometer fluid. Stainless steel fluid wells of large cross sectional area are fabricated to close dimensional tolerances. Individual measuring scales, with sharp black graduations on a non-glare white satin background, extend on both sides of the indicating column. Large numerals

at both ends of major graduations provide at-a-glance readability. Individual scale adjustment for zero reference is conveniently made on each tube of the instrument. The framed window provides protection from dirt and moisture. Each tube has the Meriam Stream-Flow drain valve to facilitate draining. The instrument finish is a durable black textured urethane. In addition to the table mounting (TM) style shown here, wall mounting (WM) and flush front mounting (FF) styles are also available.

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NOTE: This drawing shows two of the available mounting styles: Table Mount (TM), Wall Mount (WM). When ordering the customer must specify the type of mounting required.



Dimensions Table

Tube Quantity	F*		G	H	I
	Ranges 6" - 30"	Ranges 35" - 100"			
2	9.125 (231.8)	10.00 (254.0)	6.00 (152.4)	8.875 (225.5)	7.375 (187.3)
3	12.125 (308.0)	13.00 (330.2)	9.00 (228.6)	11.875 (301.6)	10.375 (263.5)
4	15.125 (384.2)	16.00 (406.4)	12.00 (304.8)	14.875 (377.8)	13.375 (339.7)
5	18.125 (460.4)	19.00 (482.6)	15.00 (381.0)	17.875 (454.0)	16.375 (415.9)
6	21.125 (536.6)	22.00 (558.8)	18.00 (457.2)	20.875 (530.2)	19.375 (492.1)

NOTE: All numbers in parentheses are in millimeters.

*F is distance between mounting feet on table mount model (see page 72)

Specifications

Scales

- A – Inches and tenths
- F – Centimeters & Millimeters
- G – Inches & tenths of water using 827 Red Oil
- I – Inches & fifths using 295 Red Fluid

Made to Order

Fluids	Nominal Sp. Gr.
Meriam 1000 Green Concentrate	1.000
Meriam 827 Red Oil	0.827
Meriam 100 Red Unity Oil	1.00
Meriam 190 Blue Fluid	1.90
Meriam 295 Red Fluid	2.95

Accessories

Fluid Check Valve	Z942K50
Line Trap	Z932A35
Line Trap	Z932R10
Moisture Trap	Z933A10
Valves & Piping	Z943AC300 (Steel)
	Z943AS300 (Stainless Steel)

Ordering Information

To order Meriam's 33KBX35 manometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Range
- Mounting Style
- Safe Working Pressure
- Scale Description
- Number of Tubes

Fluid Requirements per Tube & Instrument Weight

Range	6	12	20	30	35	40	50	60	80	100
295 Fluid lbs.	.75	.75	.75	.75	.75	.75	.75	.75	1.5	1.5
Fl. Oz.	4	4	4	4	4	4	4	4	7	7
Weight Lbs. x No. Tubes	6	9	11	12	12.5	13	14	17	21	24

Specifications

Ranges 6, 12, 20, 30, 35, 40, 50, 60, 80, 100

Pressure Rating 350 psi

Mounting Wall, Table, Flush Front

No. of Tubes 3, 4, 5, 6

Body Construction Aluminum Channels

Wetted Parts Stainless Steel, Glass, Viton

Connections 1/4" NPTs

Scale Aluminum, nonglare white satin finish with black graduations

Case Finish Black textured urethane



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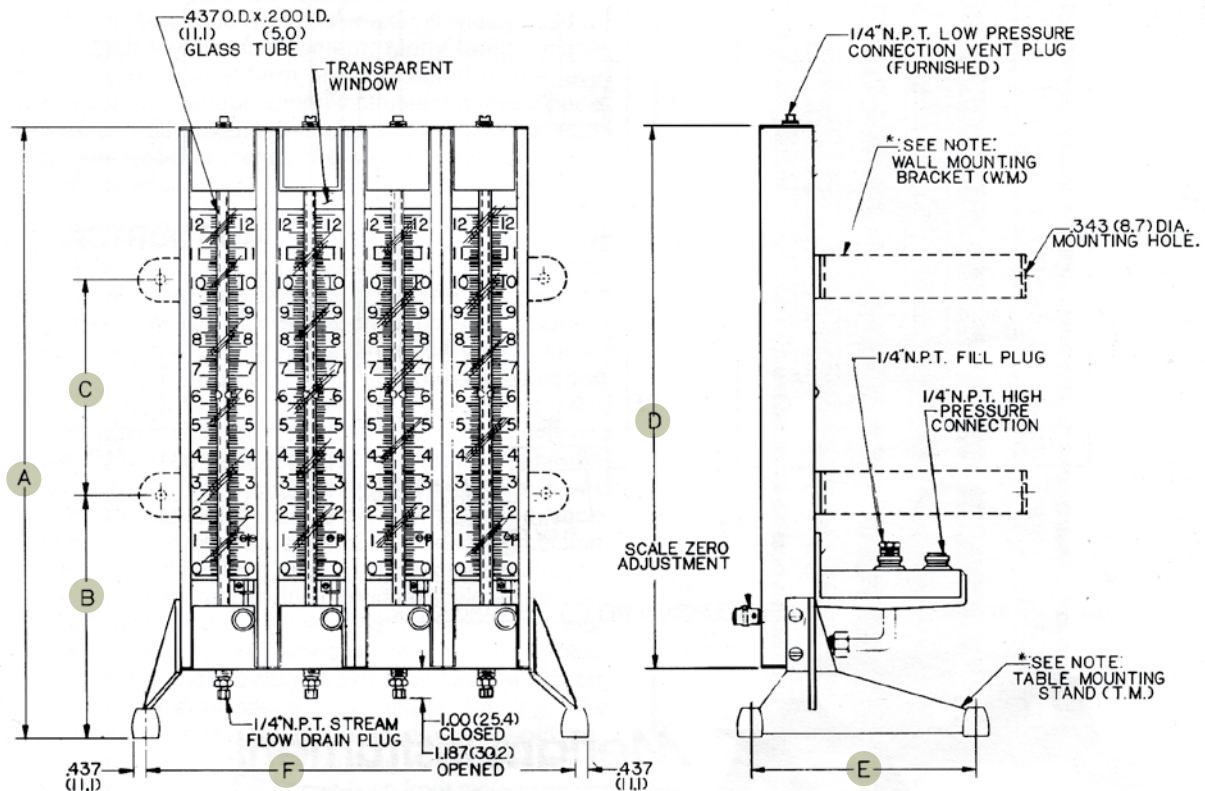
Multiple Tube Well Type Manometer

(Specifications Continued)

Dimensions Table

Range	A	B	C	D	E
6"	15.250 (387.4)	6.250 (158.9)	3.750 (95.3)	12.75 (323.9)	7.75 (196.9)
12"	21.250 (539.8)	8.00 (203.2)	5.50 (139.7)	18.75 (476.3)	7.75 (196.9)
20"	29.250 (743.0)	8.00 (203.2)	10.50 (266.7)	26.75 (679.5)	7.75 (196.9)
30"	39.250 (997.0)	8.00 (203.2)	20.50 (520.7)	36.75 (933.5)	7.75 (196.9)
35"	44.250 (1124.0)	8.00 (203.2)	25.50 (647.7)	41.75 (1060.5)	12.00 (304.8)
40"	49.250 (1251.0)	8.00 (203.2)	30.50 (774.7)	46.75 (1187.5)	12.00 (304.8)
50"	59.250 (1505.0)	8.00 (203.2)	40.50 (1028.7)	56.75 (1441.5)	12.00 (304.8)
60"	69.250 (1759.0)	8.00 (203.2)	50.50 (1282.7)	66.75 (1695.5)	12.00 (304.8)
80"	89.250 (2267.0)	8.00 (203.2)	70.50 (1790.7)	86.75 (2203.5)	12.00 (304.8)
100"	109.250 (2775.0)	8.00 (203.2)	90.50 (2298.7)	106.75 (2711.5)	12.00 (304.8)

NOTE: All numbers in parentheses are in millimeters.



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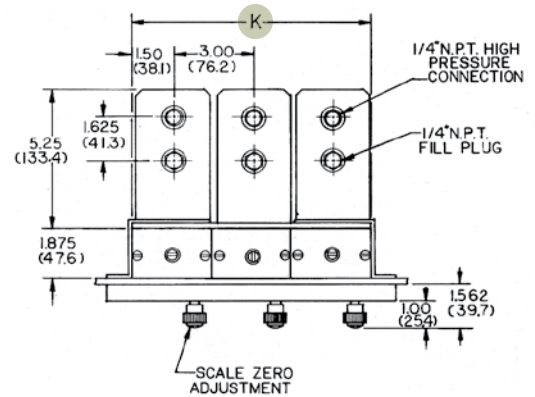
Multiple Tube Well Type Manometer

(Specifications Continued)

Dimensions Table 1

Range	A	B	C	D	E	F	G
6"	14.375 (365.1)	11.250 (285.8)	5.625 (142.9)	9.375 (238.1)	—	—	—
12"	20.375 (517.5)	17.250 (438.2)	7.375 (187.4)	12.875 (327.0)	15.375 (390.5)	—	—
20"	28.375 (720.7)	25.250 (641.4)	7.375 (187.4)	17.875 (454.0)	23.375 (593.7)	—	—
30"	38.375 (974.7)	35.250 (895.4)	7.375 (187.4)	17.625 (447.7)	27.875 (708.0)	33.375 (847.7)	—
35"	43.375 (1101.7)	40.250 (1022.4)	7.375 (187.4)	20.125 (511.2)	32.875 (835.0)	38.375 (974.7)	—
40"	48.375 (1228.7)	45.250 (1149.4)	7.375 (187.4)	22.625 (574.7)	37.875 (962.0)	43.375 (1101.7)	—
50"	58.375 (1482.7)	55.250 (1403.4)	7.375 (187.4)	19.125 (485.8)	36.125 (917.6)	47.875 (1216.0)	53.375 (1355.7)
60"	68.375 (1736.7)	65.250 (1657.4)	7.375 (187.4)	23.125 (587.4)	42.125 (1070.0)	57.875 (1470.0)	63.375 (1609.7)
80"	88.375 (2244.7)	85.250 (2165.4)	7.375 (187.4)	29.125 (739.8)	56.125 (1425.6)	77.875 (1978.0)	83.375 (2117.7)
100"	108.375 (2572.7)	105.250 (2673.4)	7.375 (187.4)	36.125 (917.6)	69.125 (1755.8)	97.875 (2486.0)	103.375 (2625.7)

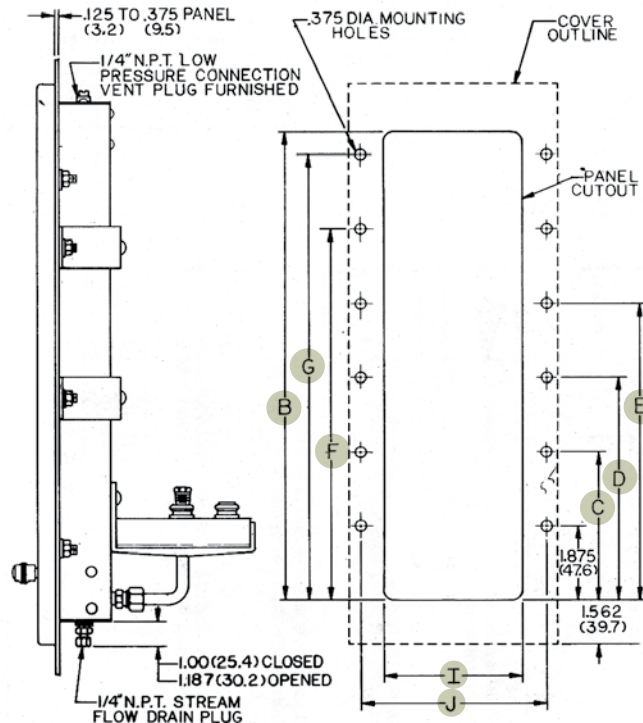
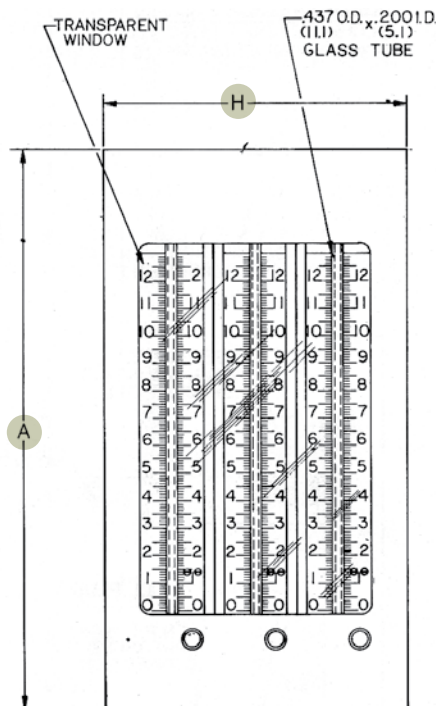
NOTE: All numbers in parentheses are in millimeters.



Dimensions Table 2

Tube Quantity	H	I	J	K
2	7.875 (200.0)	5.875 (149.2)	7.125 (181.0)	6.00 (152.4)
3	10.875 (276.2)	8.875 (225.4)	10.125 (257.2)	9.00 (228.6)
4	13.875 (352.4)	11.875 (301.6)	13.125 (333.4)	12.00 (304.8)
5	16.875 (428.6)	14.875 (377.8)	16.125 (409.6)	15.00 (381.0)
6	19.875 (504.8)	17.875 (454.0)	19.125 (485.8)	18.00 (457.2)

NOTE: All numbers in parentheses are in millimeters.



FINISH: Black textured urethane